

Mohamed Ezzat

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Education

Bachelor's degree, Computer and Artificial Intelligence, Cairo University

2020 – 2024

Academic Courses: Data Structure and Algorithms, Software Engineering, Database , business automation, System Analysis, BigData , Machine Learning, Data Analysis

Work Experience

Data Analyst, Scale AI

08/2023 – 11/2023

- Developed AI models across various business fields to solve complex problems and improve operational efficiency.
- Created detailed data analysis notebooks to address user queries and provide comprehensive insights.
- Designed and implemented dashboards to visualize analysis results, enhancing data comprehension for stakeholders.
- Utilized Python (NumPy, Pandas, Matplotlib) for data manipulation, analysis, and visualization.
- Employed SQL for database management and data extraction.
- Performed data wrangling to clean and prepare data for analysis.

Technology: python (numpy, pandas and matplotlib), SQL , PowerBI

Communication and IT intern, GANOPE Petroleum Company

08/2022 – 09/2022 | Cairo

- Conducted queries and generated reports in SAP ERP to monitor employee status and track monthly revenue
- Managed Windows Server environments, including Active Directory administration and Group Policy management
- Created and configured email accounts and startup packages for new employees, facilitating smooth onboarding and integration into the company's systems.
- Integrated smart devices into the company network, enhancing connectivity and productivity across the organization.

Coding Instructor, American University in Cairo

07/2024 – 09/2024

Worked as Coding Instructor for teenagers in Future Me Summer Camp aiming to applying business ideas using technologies

Data Insights Intern, B_labs

07/2024 – 10/2024

- Analyze Trends in Electronics Retail Industry to get up with insights about the Purchase Process
- Creating Dashboards that monitor customer acquisition and Retention KPIs and metrics
- Design and create recommendation reports to the high boards about desired action to improve the procurement process

Technology used : AWS, PowerBI, BIGQuery, Amplitude, SQL Server, Google Analytics

Data Scientist, GIZA Systems (STC Corporate)

10/2024 – present

- Perform deep Time Series Analysis to develop models solving forecasting problems
- Developed AI virtual assistants to act as customer service representative to the clients of the company
- Finetuning AutoML model based on LLMs using QLoRA to deliver the best ML algorithms in Classification Tasks
- **Technology used: ARIMA , Transformers , Langchain, CNNs, LSTMs , RNNs, NIFI, Spark, QLoRA, tensorflow, LLMs, Llama3.2**

Awards

1st Prize Huawei AI innovation competition

05/2024

- Developed Automated Accident Detection System with Alerting module and admin mentoring portal and Dashboard
- Secured first place in the national and regional phases in Africa.
- Achieved first place in the world finals held in Shenzhen, China.
- Selected as one of the top 8 projects globally in the competition, highlighting exceptional innovation and impact.

AIC-1 Finalist

08/2023

- Finalist in NLP Competition at the Military Technical College (13th out of 355) teams
- Finetuned AraBART transformer model to perform Abstractive Arabic Summarization tasks

Projects

Real-time Road Accident Detection system

03/2024

- Utilized YOLO v8 to create an AI model capable of analyzing CCTV footage detecting road accidents in real-time
- Designed the system to instantly notify authorities, including the nearest police stations and hospitals using SMS and Email.
- Developed admin portal to monitor the whole process using interactive Dashboard.
- Developed pipeline to make the system available on Huawei cloud Services

Technology used: YOLO ,Huawei Message API ,SMTP , RTSP , ECS , RDS , ELB, ModelArts, Huawei Cloud services

Flower Classifier

09/2023

Developed an image classifier for 102 flower categories

- Load a pre-trained network (**Vgg (CNN)**)
- Define a new, untrained feed-forward network as a classifier, using ReLU activations and dropout
- Train the classifier layers using backpropagation using the pre-trained network to get the features
- Track the loss and accuracy on the validation set to determine the best hyperparameters

Arabic summarization model

08/2023

finetuned NLP model (araBART) by manipulating hyperparameters and tracking the loss function values to generate valuable arabic summarization texts

Huggingface,Seq2Seq models,Transformers

GovGuide, *Customized Chatbot System for Government Traffic Services*

- Developed an advanced chatbot system for querying government traffic services.
- Utilized Large Language Models (LLM) and LangChain to enhance chatbot capabilities.
- Implemented Retrieval-Augmented Generation (RAG) techniques for improved query accuracy and efficiency.
- Integrated a vector database to enable efficient and precise information retrieval.

Technology used: python, streamlit, LangChain, openAI,RAG,NLTK

Skills

Programming Languages — python libraries(pandas, numpy seaborn, matplotlib SKLearn) - MS SQL - C/C++ - Java ,Web development: HTML-CSS-Javascript- C# - .NET - entity framework-MVC - Web APIs - MS Azure

ML Skills — Supervised,Unsupervised,Reinforcement learning | linear algebra, Statistics | Data preprocessing, Data visualization | Neural network (RNN,CNN,transformers) | model optimization, Power BI, Tableau

Certificates

Google Data Analytics
Coursera

Data Analysis Course
Udacity

Supervised learning
Stanford University

AI programming with python
Udacity